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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,695

07/25/2003

Ronald Hubert Carlos Cornelissen

0142-0419P

2677

2292 7590 04/09/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

HU, HENRY S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

04/09/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/626,695	Applicant(s) CORNELISSEN ET AL.	
	Examiner HENRY S. HU	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE of January 31, 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. This Office Action is in response to **RCE Request** along with its **Amendment (after Final)** filed on January 31, 2008 and January 7, 2008 respectively. With such an amendment, **Only Claim 1 was amended, while no claim was cancelled or added.** To be more specific, parent **Claim 1** was narrowed down to use a spacer extending linearly over at least three atoms in a row between the oxygen atom and the ethylenically unsaturated group.

2. **Claims 1-11 with two independent claims (Claim 1 and Claim 11) are now pending,** while all nonelected **Groups II-IV (Claims 8-11) are still withdrawn from consideration.**

An action follows.

DETAILED ACTION

Response to Argument

3. Applicant's argument filed on Amendment after Final filed on January 7, 2008 has been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows: Such an amendment involves only one thing on parent Claim 1 as: to use a spacer extending linearly over at least three atoms in a row between the oxygen atom and the ethylenically unsaturated group. This is further narrowed down from previous amendment as: to use only non-oxygen-containing spacer instead of using any type spacer, which extends over at least three atoms. After a very close consideration on pages 5-8 of Applicants' remarks on the key issue regarding PFPE moiety, current 102 and 103 rejections are still sustained and non-final office action is applied for this RCE as follows:

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The limitation of parent **Claim 1** in present invention relates to **a cross-linkable compound** comprising **a perfluoropolyether (PFPE) moiety**, which is ultimately terminated by an oxygen atom and bonded through a **“non-oxygen-containing” spacer** attached to the said oxygen atom with an ethylenically unsaturated group, wherein the spacer **extends linearly over at least three atoms in a row** between the oxygen atom and the ethylenically unsaturated group. *Note by Examiner: This is further narrowed down from previous amendment as the **spacer extends over at least three atoms** between the oxygen atom and the ethylenically unsaturated group.*

*See other limitations of dependent **Claims 2-7**.*

7. **Claims 1-3** are rejected under 35 U.S.C. **102(b)** as being anticipated by **Tarumi** et al. (US 5,837,774) **or** under 35 U.S.C. **102(e)** as being anticipated by **Yamaguchi** et al. (US 6,673,887 B2 with an effective US filing date of June 22, 2000) for the reasons set forth in paragraphs **6-7** of office action dated 3-23-2007 and paragraphs **7-12** of office action dated 9-6-2007 as well as the discussion below.

8. **Claims 4-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. (US 5,837,774), Yamaguchi et al. (US 6,673,887 B2) and Chaouk et al. (US 6,160,030) in combination for the reasons set forth in paragraphs **11-12** of office action dated 1-25-2007 and paragraphs **7-12** of office action dated 9-6-2007 as well as the discussion below.

9. Regarding the **cross-linkable monomeric compound** limitation in parent **Claim 1**, each of **two** references including 102(b) by **Tarumi** and 102(e) by **Yamaguchi** has already explicitly disclosed and/or implicitly suggested the preparation of a curable fluoropolyether rubber composition by comprising **a straight-chain fluoropolyether compound, which has at least two alkenyl groups in the molecule and having a divalent perfluoropolyether structure in its backbone chain.**

Examiner fully understands that current RCE amendment involves on parent Claim 1 is to use a spacer **extending linearly over at least three atoms in a row** between the oxygen atom and the ethylenically unsaturated group. Certainly, this is further narrowed down from previous amendment as: **to use only non-oxygen-containing spacer** instead of using any type spacer (original Claim 1), which extends over at least three atoms.

10. The key point now is that **the critical definition for perfluoropolyether (PFPE) moiety is not consistent** according to current claims. For instance, dependent **Claim 4 at line 10-11** indicates that **(C_nF_{2n}O)_m is the PFPE moiety**, while Applicants allege that **D-(C_nF_{2n}O)_m-O- is the PFPE moiety**. Therefore, with such an indefinite language is on the same subject matter, previous 102 and 103 rejections are still sustained since the relationship between PFPE moiety and spacer is unclear. According to the definition from parent Claim 1, **a perfluoropolyether (PFPE) moiety** is ultimately terminated by an oxygen atom and bonded through a **“non-oxygen-**

containing” spacer attached to the said oxygen atom with an ethylenically unsaturated group.

11. As known in the art, a spacer group is “commonly” understood to be existed in between alkenyl group and the linear PFPE moiety. **“At least some of many different spacer groups” used by Tarumi and Yamaguchi indeed carry carbon atoms with no oxygen atom at all.** For instance, see Tarumi at **column 3, lines 8-9** (see the second formula with a spacer having three carbon atoms); also see Yamaguchi at **column 3, lines 18-19** (see the second formula with a spacer having three carbon atoms).

12. In summary, at least some spacers disclosed by involving references have indeed extended at least three atoms in total. Among them at least some are indeed oxygen atom-free as required by parent Claim 1. Therefore, Applicants may need to clarify the definition of PFPE moiety with exact language specifically in the claims. Meanwhile Applicants may also need to show the criticality why the spacer is required extending linearly at least three atoms. Otherwise, all the arguments cannot be considered.

Conclusion

13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu whose telephone number is (571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The **fax** number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

//Peter D. Mulcahy//
Primary Examiner, Art Unit 1796

/H. S. H./
Examiner, Art Unit 1796

March 27, 2008